DOCUMENT RESUME

ED 191 413 HE 013 103

AUTHOR Cook, Gordon
TITLE The Ph.D. Debacle: Job Search Skills--The Path Not Taken?
PUB DATE 1 Sep 78
NOTE 20p.: Paper presented at the Annual Meeting of the American Political Science Association (New York, NY, September 1, 1978)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *College Graduates; *Doctoral Degrees; Education Work Relationship; *Employment Opportunities; Higher Education; *Job Applicants; Job Placement; *Job Search Methods; Labor Market; *Self Evaluation (Individuals)
IDENTIFIERS Resumes

ABSTRACT

The difficult job market for PhD's during the current period of retrenchment on campuses and the need for job search skills for the jobs in the nonacademic sector are addressed. It is suggested that colleges and universities should adapt a version of the Deeper Investigation of Growth (DIG) techniques pioneered by Richard Gummere at Columbia University to aid in the placement of PhD's. The training consists of two parts: the analysis of transferable skills necessary to write a functional, skills-oriented resume, and instruction in indirect job searching. In searching back over the experiences gained, the job searcher will find that certain skills stand out, and these skills will help identify values and the appropriate career direction to be pursued. The functional resume is composed of an objective, a brief summary of qualifications necessary for the objective, and a summary of related experiences in graduate work or elsewhere. Educational background and work experience information are listed at the very end. The purpose of indirect job searching is to insert oneself into the network through which unadvertised positions are filled. The applicant asks friends and contacts for the names of people working in positions of importance to whom they can seek advice about the opportunities in their field, the nature of the work, and further contacts that may be helpful. Reference is made to the advice given by the popular guide for job searchers entitled "What Color Is Your Parachute?" (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED191413

THE PH. D. DEBACLE:

Job Search Skills - The Path Not Taken?

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Gordon Cook

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BY

Gordon Cook
Information Specialist
Center for Occupational and Professional Assessment
Educational Testing Service
Princeton, New Jersey

HE 013 103

Presented to:
The Women's Caucus for Political Science,
American Political Science Association Convention
The Hilton Hotel, New York City
September 1, 1978

The Ph. D. Debacle:

Job Search Skills - The Path Not Taken?

We all know that the vast majority of Ph.D.s produced between 1970 and at least 1990 will have to find nonacademic employment. Yet I would suggest to you that so far the quality of response to this unprecedented dilemma has been quite alarming.

Since 1974 three major studies of the Ph.D. crisis have been funded: the original Mellon project, the National Endowment of Humanities (NEH) Humanists in Business, and the National Science Foundation (NSF) Study of Nontraditional Careers of science and social science Ph.D.s. By the end of next year the amount spent on these three studies will be approaching the one million dollar mark. Results so far have been extremely sketchy. While have had a few short articles, the final report on the Mellon project is now a year overdue. Only one, the NEH program, will lead to employment for Ph.D.s. If all goes as planned, by this time next year, it will have placed one hundred carefully screened, selected, and retrained Ph.D.s with major corporations at a cost of $3,500 per Ph.D.

The outcome of all this seems increasingly certain. By 1980 we shall have expended a large amount of money to investigate a problem involving the waste of the skills of a very large number of highly trained men and women. Our investigations will have led to employment for one hundred of the twenty thousand to fifty thousand Ph.D.s who need it. Having done all of this we shall be without any systematic knowledge of the ability of well-motivated Ph.D.s, given minimal training in job search skills, to define their own work objectives and to find their own nonacademic employment.

We are thrashing about like the dinosaur in the tarpit. There are people who, as they watch our plight, are beginning to say Ph.D. programs are obsolete and should be dismantled. These people cavalierly state that the issue is how to decrease production, how to turn off the supply. Having said this, they turn their backs without offering any concrete steps to achieve their goals. I suspect they know very well that, with many present faculty jobs dependent of current doctoral programs, no university will rush to dismantle them. Until the students get wise and stop coming, I submit that there is no way--short of padlocking university doors--to make a significant dent in the supply for the near term. I do agree that all reasonable efforts be decrease supply should be taken. Unfortunately, the impact of such action will be slight and will have no effect on the thousands of surplus Ph.D.s already produced.

Nevertheless, short of dismantling doctoral education, there is one important effort that hasn't yet been made and ought to be given a chance: training in the kind of job search skills used by executive out-placement firms. On each of six campuses a sizeable sample of Ph.D.s ought to be chosen and given such training. Their job searches ought to be carefully tracked. A case history of every search should be compiled. If we were to train 200 Ph.D.s and find out ten months later that 175 or more had found good non-academic jobs, that would tell us that Ph.D. programs are not obsolete. On the other hand, if fifty or less found employment, that would tell us something equally important. The word would get out, and students should then have powerful reason not to come. I think the chances that few would find work are slim. I am confident that training would lead to success for the vast majority. In the time remaining I would like to share with you a brief description of how this could be done.

The training given on each campus would be an intensive version of the Deeper Investigation of Growth (DIG) techniques pioneered by Richard Gummere at Columbia a decade ago. The trainers would be Mr. Gummere, another Columbia counselor, and the project director. Members of the placement office of the host university would also participate in the training, so that, having become familiar with the techniques themselves, they could offer the training to all students on their own campuses from that point on.

The training itself is relatively simple and is something that, if you are well motivated, you may want to attempt on your own. Before I explain it to you, I would only add two qualifiers. First, from my own experience in helping others, it appears almost impossible for those who try it on their own to write an adequate resumé without the guidance of a more experienced person. Secondly, those in need can buy this kind of counseling from professionals. Bernard Haldane is one of the major firms that specialize in it. However, it is very expensive: two to three thousand dollars--an amount that most Ph.D.s are unlikely to have.

The training itself consists of two parts: 1) the analysis of transferable skills necessary to write a functional, skills-oriented resumé, and 2) instruction in indirect job searching.

To come up with a viable resumé it is necessary to do a lot of mental dredging. You must recall, at random at first, several things that at anytime in your life, you have done and done well. What, in other words, are some of the successes that you have enjoyed? Why did you enjoy them? Was it because they brought recognition and prestige, or was it because of an environmental situation (traveling or work in a natural setting)? Finally, and much more crucial, did the satisfaction come because the success involved

the demonstration of a skill? For example: persuasiveness, resourcefulness, critical analysis, long-range planning, ability to cross social barriers, leadership, lucid writing and so on. The list can grow long.

However, as you search back over the experiences that have made you who you are, you will find that certain skills begin to stand out. What you must do is compile a considerable list of successes, and analyze them for the skills involved. Doing this, the chances are that you will find a nonacademic job objective beginning to grow organically out of the process. The skills help to highlight what you value and the combination of values and skills points out the career direction in which you want to go.

The functional resumé then is composed of an objective, a brief summary of qualifications necessary for the objective and about a page-long summary of related experiences where your successes (many from your graduate work) are listed and labeled in the lefthand column with the skill that the success represents. Thus an employer can see your real strengths and understand at once how your skills could be applied to the problems with which he must deal on a day-to-day basis. The skills listed should be the basic prerequisites for the objective that you have defined. Writing will often be a listed skill. Consequently, you should feel free to list publications. Your Ph.D. is nothing to be hidden, but generally it will appear in a summary of your education near the end of your resumé. Your work experience is listed at the very end. This kind of resumé will open the very doors that will be shut by a standard academic vita.

In the proposed project four of the five days of intensive training would be devoted to the self-analysis necessary to identify skills and to the construction and revision of resumé drafts. The final day would be occupied by training in indirect job searching. Experts in job placement say, with

considerable confidence, that 80% of professional jobs are filled by word of mouth, that is to say, they are never advertised. The purpose of indirect job searching is to insert oneself into that network through which unadvertised positions are filled.

The process is quite simple. Your task is to get high-placed executives who have the power to hire you to become willing to talk to you for a short while, not about a job, but about general career opportunities in their area of expertise. You begin the process by asking friends, family, faculty, and acquaintances for the names of people working in positions of importance to whom you can write the following kind of letter.

Dear John Doe:

> I am writing you at the suggestion of Bob Smith. I am beginning to explore career opportunities in the area of XYZ. You will see from my enclosed resumé that I have the necessary entry level skills for this area. However, let me assure you that I am not approaching you for a job. What I need at this point is more detailed information about career opportunities in this area. I am certain that I can learn a great deal from taling to you for a short period of time. I will call you in a few days to find out when you can see me.

Sincerely,

Jim Jones

This kind of letter will get you interviews with about half the people to whom you write, if you have done your homework well. When you see John Doe, you ask him to critique your resume; you talk about what he does in his organization; you seek his general advice and you ask for the names of others to whom to write as you have written to him.

This gives you a branching tree of interviews to pursue. You are taking both your job search and your fate into your own hands. Far more than ever

before, this process puts you in control. Many people find it downright fun. The point is that eventually you will land, via an indirect interview, with an employer who is looking just at that time for someone with your qualifications, or, sometime later, an individual with whom you have already had an indirect interview will have an opening, will remember you and will offer you the job. It is hard work and Columbia's experience with it shows that people can expect to work nearly full time at indirect interviewing for an average of five months before being hired. However, because it can offer Ph.D.s career opportunities far better paying and far more exciting than those of the proverbial taxi cab driver and gas station attendant, most Ph.D.s who have received the training at Columbia have decided that it is well worth the time and effort.

A word of caution. Columbia's job search skill training does very much resemble the advice given by What Color Is Your Parachute? There are people who have said to me, "Why don't you supply Ph.D.s with a copy of Bolles and let them do their own work?" Such statements invariably come from people who have never had to change careers and have never had to do indirect job searches. I try to tell them that the answer is relatively simple. Parachute, while better than nothing is not the perfect aide.

For example, at a recent meeting of the Eastern College Placement Officers, I was on a panel with two employers who gave reactions to the Parachute variety of indirect job search. Their comments were devastating. Parachute, you see, differs with the Columbia training in several very important respects. Bolles tells his readers that if they can figure out a company's problems and come up with a way in which they can help the company solve them, they will, in effect, create their own jobs. The company, he says, would be crazy not to hire them.

It sounds like an appealing proposition, doesn't it? But how many

among us could carry it off without spending a huge amount of time studying a given industry or company? Even then, many and maybe most of us outsiders, could never be convincing. Bolles is asking quite a feat of his readers. I, for one, having gotten Columbia's advice to come to an executive seeking information, never took Bolles seriously on this point. But apparently there are many out there in the "real world" who do. They write letters to corporate executives saying, "I would like to come talk to you about your company's problems and how I think I could help you solve them." Evidently, they either don't realize or don't care how presumptuous they sound.

One panelist from Norton Company said that Norton's top executives had been getting an average of 80 such letters per executive per week this year! Such letters are routinely sent to the personnel department where their authors get form letter replies. None ever gets an interview.* The other panelist from the Paul Revere Insurance Company agreed that Parachute was being used by people who were applying it very poorly. As he told the placement counselors, "If your graduates are going to write to us about our problems at least make sure they know what the hell they are."

My experience suggests that Parachute is a well written book, that has gotten tremendous exposure and has been accepted far too uncritically. During the past year I have either written to or talked by telephone to placement people at about 35 universities. At perhaps a fourth of these universities, during the last three to four years, placement counsellors had begun to experiment with counseling in functional resumes and indirect job searching--in every case using Parachute as the Bible. Judging from my panel experience with the ECPC such efforts may cause as much harm to the job

* I asked the panelist how the executive would respond to the less presumptuous Columbia kind of letter. He said, "If the person's resume backed up what his letter said, the chances are the executive would see him."

seeker as they do good. Columbia, it should be added, has ten years experience to work out rough spots in its process, rough spots of which other institutions are only gradually becoming aware.*

In creating a project to disseminate the Columbia DIG training, the first step should be to identify universities where both the graduate school administration and the placement counselors are concerned about the Ph.D. problem and are ready to do something innovative to try to solve it. Letters desribing the proposed project should be sent to placement people of thirty or so major Ph.D. producing universities in urban areas.** The responses from the placement people will identify those who recognize the problem and are ready to make a new effort to find a solution.

Because experience has shown that faculty at most major university do not routinely send their Ph.D.s to the university placement office, the question of one's ability to recruit thirty to thirty-five Ph.D.s on each of six campuses becomes crucial. The answer to this problem should be found in the attitude of the graduate school dean. Does he or she recognize the crisis nature of the problem? Is there a willingness to work with the faculty and placement office to identify Ph.D.s in need of the job search skills training and to make sure that there is a target group of thirty to thirty-five ready to begin training on a chosen date?

---

* It should be added that Columbia's DIG never began as a copy of Parachute. DIG has always been regarded, quite properly in my opinion, as a horse of a different color. Saul Guner, currently Senior Vice President of THinc, International and a former colleague of Bernard Haldane, worked with Columbia's Richard Gummere in 1968 to establish the first program of this kind in the country.

** Nonacademic jobs using skills acquired by Ph.D.s during their training are not likely to be found in sparsely populated areas.

You will find that a non-cooperative attitude on the part of the graduate school dean will eliminate a lot of universities with enthusiastic placement offices. Eventually, however, there should be six universities identified where both the dean's office and the placement office are willing to work together. For example, you might wind up with Maryland, Princeton, Rutgers, Michigan, Chicago, and Southern California. These universities would cover job hunting for the Washington, Philadelphia, New York, Detroit, Chicago, and Los Angeles areas.

Once you had done this, and once you had as project director, a Ph.D. who had undergone a transition from an academic to a nonacademic career as a result of having used the appropriate job search skills successfully, you would be ready to begin the study. The project director would prepare a booklet describing the job search skills and showing how Ph.D.s could use them in finding employment. Copies of the booklet would be distributed to the dean's office and placement office on each campus. The two offices together would take responsibility for getting them out to the departments and into the hands of recent Ph.D.s. After considerable publicity, the project director would visit each campus on a prearranged date to sign up thirty or so Ph.D.s for a Monday through Friday training session to begin on that campus a month later. The Ph.D.s would be given copies of Bolles' What Color Is Your Parachute? to read during the interval.*

When the training had been accomplished on each of the six campuses, the Ph.D.s would begin their job searches. Every month those searching in the general area of the university would return to campus for an afternoon

* For the reasons which have already been discussed they would be warned not to take Bolles too literally.

follow-up session with the local placement officers. This session would be designed to work out the kinks in the job searching process, to clarify misunderstandings, to share leads and to provide mutual reinforcement of the job seekers' efforts.

Every month participants would be asked to fill in a single page summary of the indirect interviews they had obtained, along with their comments on how they felt their search was progressing. On finding employment they would be asked to complete a more detailed summary of the nature of the employment found and their overall reaction to the use of the techniques, including their strengths, weaknesses, and unexpected developments. The result of all this would be a considerable amount of hard data on what happens to Ph.D.s in search of nonacademic employment. It could be used to write a small book, entitled, Roadblocks, Stumbling Points, Disasters and Other Obstacles to Employment: How to Avoid Them. The insights provided should be useful both to future job seekers and the counselors responsible for their training.

Finally, there should be a detailed evaluation of the project's outcomes. The employment questionnaire, in addition to measuring the basic parameters of the job found, would seek to assess, both the effect of the job search training on the Ph.D.'s sense of self-esteem, and his or her evaluation of the ways in which the training helped or failed to help. Six months later, telephone follow-ups would be made to determine whether the Ph.D.s were still employed and to attempt to assess their degree of satisfaction with their new positions. The degree of success of each person's search would be rated on whether or not he or she found employment: in a job that matched the re-defined career goals; at a salary equal to or greater than the current average starting salaries of assistant professor; in a position using x number of the

skills that the candidate defined on his resume; and finally the feeling of statisfaction with the position six months later.

If the Ph.D.s who participated in such a project were well motivated and persistent, Columbia's experience suggests that a placement success of 90% or more could be achieved. Such a success, it seems to me, would establish once and for all that there is a very definite means by which Ph.D.s can undergo career change. Furthermore, it would show how Ph.D.s could define their own career directions by an analysis of their own strengths and weaknesses, rather than having to shape themselves arbitrarily to fit someone else's preconceived idea of a job slot.

Such a study would give us 200 case histories of Ph.D.'s employment searches. They would provide a potential basis for a job registry that would show other Ph.D.s possibilities that might never have occurred to them. The process involved and problems encountered could become a basic guide for Ph.D.s on campuses nationwide. In addition to this, the project would compile data on unusual courses that Ph.D.s had taken outside of their area of specialty; for example, statistics, systems analysis, computer programming, information networks, and so on. Courses that were particularly helpful in gaining employment could be identified. Such data would be usefull in suggesting changes in doctoral curricula that would help future job seekers.

It would be extremely important to disseminate as widely as possible, the results of a project like this. To this end, the Council of Graduate Schools (CGS) could make a major contribution. It could become a co-sponsor of the project. A CGS subcommittee on Ph.D. employment might be formed. In addition to serving as project advisor, the committee could lend its name to a special CGS newsletter which would be written by the project director.

Issued quarterly, beginning with the project's inception, the newsletter would detail the planning, the training sessions, the searches and project results. It would be sent to the graduate school deans of the 351 college and university members of CGS, to their placement offices, and to the heads of the ten largest departments at each major Ph.D. producing school. If this were done the entire American graduate school community would be kept informed for the project's progress and outcomes.

If placement rates were as successful as anticipated, we would have achieved far more than a mere evaluation of the effectiveness of Columbia's DIG counseling. We would have developed a new model for the placement responsibility in graduate education. In the pages of the Chronicle of Higher Education in March of 1978, Lewis Solmon of the Higher Education Research Institute called for the establishment of "a link between graduate students and university placement offices which could provide the students with useful connections to the business and industrial world." Certainly, if the DIG counseling were evaluated and then disseminated to other campuses, it could provide such a link.

Such a project would encourage the widest possible dissemination of the DIG training. It would facilitate the opening of communication channels between placement counselors, faculty, deans, graduate students, and recent Ph.D.s. The project would show graduate school deans and faculty what placement offices could do for their graduate students. It would encourage deans to make certain that their faculty directed students to their placement offices. It would make graduate students aware, early in their training, of what their placement offices can do for them. As experience was gained in the placement of Ph.D.s in nonacademic jobs, it would be reasonable to assume that feedback from Ph.D.s in such jobs would have an impact both on the

curriculum design of graduate education programs and on the counseling of future students. It is possible that some industries may find that doctoral training in certain academic fields is both useful and desirable for certain types of jobs. Faced with this information, university administrators, it is to be hoped, would ultimately recognize that the education they provided must meet not only the needs and standards of the academic community, but also be broad enough to meet both the needs of students and of the nonacademic community in which most of them will ultimately find employment.

Appendix

It would be only a small step to take the project that I have just described and work it up into a full fledged proposal. The budget for such a project ought to run about $140,000--less than half the cost of the three earlier studies. It is a task begging to be done. However my experience suggests that acceptance by a funding agency would, by no means, be automatic.

The problem, in part, appears to be one of social context. The fact that there is a crisis has been getting unprecedented media attention. The New York Times ran three stories in July of 1978. During the same period Time and Forbes published articles and Jane Paulley read an essay on NBC's "Today." The problem has been brought to the public's attention, but the tone of the message has been primarily one of amusement. There has been nothing conducive to the creation of any wide spread concern. It has become easier and easier to treat the problem as a joke. Even those with Ph.D.s who have not been through the process of career change seem to be unable to grasp the obstacles involved.

For example, last fall, I asked a contact at the Employment and Training Administration of the Department of Labor to try to get for me some in-house feedback on the ideas for the project I have just outlined. Several M.A. and Ph.D. economists and statisticians commented. There was a general failure to understand the DIG process and to see why anyone should have to use it. After all, the commentor's jobs had come easily enough to them. One reacted rather more sarcastically: "Do you mean to say that having been taught their subjects to the extent where they have a Ph.D., they now also have to be taught how to find a job? Whatever happened to our tradition of self-reliance in this country?"

On top of this "they-made-their-own-bed-let-them-sleep-in-it-attitude" there is a current of opinion out there in the "real world" that is beginning to question the very need for doctoral programs. On December 2, 1977, the London Times Higher Education Supplement carried an interview with Lewis Solmon who described the research of the Higher Education Research Institute (HERI) on the Ph.D. problem. Solmon concluded by saying that HERI was "thinking about the sensitive question of which Ph.D. programs should be closed down." He had decided that those who said third-and fourth-rate programs should be closed were wrong. The cuts, he said, should begin with elite programs and run downward because third-and fourth-rate programs met important local needs.

In the June-July 1978 issue of Change Mr. Solmon offered some additional thoughts in an enlightening article entitled "Jobs for Humanists." Issue by issue Solmon suggested why attempts at reform are likely to have little or no impact on the problem. Finally he stated: "...the questions remain: Does society need a regional university in each city or state, or within each 500-mile radius?" If society does maintain that it needs regional universities, does this "imply that a regional university is entitled to programs in all fields?" While Mr. Solmon certainly seemed to imply that we are plagued by a surplus of increasingly obsolete universities, his article begged the question by concluding that the "HERI study has no easy solution." However the study did have a final recommendation: Doctoral students should be given better information about their employment prospects. "Then, if the labor market fails to loosen up, there will at least be fewer cries of outraged regret from the ranks of the academic unemployed." While I agree with the need for better information on employment prospects, I cannot agree with the implication that those foolish enough to have completed the degree will be left in a corner, stuck with what they have so richly deserved.

I am not among those who are ready to label Ph.D. programs obsolete. I am convinced that for many people they can be desirable and intrinsically rewarding experiences. However, if Ph.D. programs are to survive we must evaluate the extent to which training to job search skills can enable the graduates of Ph.D. programs to find their own nonacademic careers. Having done so, we must then go on to make this training widely available. If we do this, the Ph.D. could become a viable educational option for those who have love of subject but, being realistic, have no expectation of teaching. On the other hand, if we continue "study" the problem, while ignoring the issue of the very job search skills that can enable Ph.D.s to find employment, I suggest that we will deserve the debacle that we shall inherit.

In my opinion the unforgivable act would be to make the facile conclusion that Ph.D. programs are suddenly irrelevant and therefore must be massively closed down, forgetting the fact that such tactics would result in thousands more scholars being thrown into the streets. Such an act would indeed be cutting off the nose to spite the face. However the Solmon quotes are evidence that the "unthinkable" has begun to be suggested. The idea is out and in circulation. In the context of Proposition 13 it could catch on in our state legislatures with remarkable speed, unless the academic community unites and takes responsibility for its present predicament.

I suggest the following program:

- Prospective doctoral students should be fully informed of their employment prospects at the time they apply for admission. To facilitate this the Council of Graduate Schools, the American Association of University Professors, and the American Council on Education should adopt policy statements requesting their respective constituencies

to comply with disclosure regulations printed in the February 20, 1975 Federal Register.

- CGS, AAUP and ACE should combine with the American Council of Learned Societies to assert publically that positive measures should be taken to assist Ph.D.s (that have been and are being produced) in the process of career change. The higher education community, if it is to survive in anything like its present form, must assert a potential willingness to assist both present and future Ph.D.s in finding nonacademic employment.
- As an expression of this willingness, the presidents and executive directors of the learned societies of the humanities and social sciences should endorse the need for either the project I have out lined or one similar to it. They should join with the ACLS in seeking funding to assess the effectiveness of the job search skills training in placing Ph.D.s in non academic careers. Such a project could be carried out by any of the following: the Educational Testing Service, the American Council on Education or the Washington office of AAUP.

If such a project were carried out and few Ph.D.s found employment as a result of the project, we would have solid evidence that, even under the best of conditions, a Ph.D. was dangerous to your health. The word would be out and students would have ample reason to stop coming. When, as a result Ph.D. programs were closed down, policy makers would have evidence that they were acting rationally and were doing the right thing. I doubt very seriously that any project undertaken would have this sort of outcome. The point is, however, that the leaders of higher education should be prepared to take the risk.

Once the risk was taken, I am convinced that the success of the job search skills training would be proven. Eighty to ninety percent of the Ph.D.s ought to be successfully employed in new careers. A new and successful placement model would have been demonstrated. Universities should then have ample reason to make training in these job search skills available to their Ph.D.s through their own placement offices. Those that followed such a course should be encouraged to maintain their doctoral programs, if at the same time, they showed a willingness to focus on building nonacademic applications into their curricula. Where universities, in the light of clear evidence, refused to act responsibily, pressure should be brought to close down their doctoral programs.

If academic policy makers were to carry out such a program, they would have demonstrated a capacity to respond to a crisis in a unified way, a capacity that should impress both our politicians and the public. I suppose, however, that historians of academe would say that the past, taken as an index to the future, will hold out little likelihood of such an occurence. Should this turn out to be true, I predict that the fate of the Ph.D. will be that of the California condor. It will be a great soaring experience that the technocrats label obsolete and, in order to fulfill their prophecy, bring to the verge of extinction.